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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

LEGAL SUBCOMMITTEE

Thirty-first session

SUMMARY RECORD OF THE 560th MEETING

Held at the Palais des Nations, Geneva,
on Wednesday, 8 April 1992, at 10.30 a.m.

Chairman: Mr. MIKULKA (Czechoslovakia)

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Matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union (continued)

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The meeting was called to order at 10.45 a.m.

MATTERS RELATING TO THE DEFINITION AND DELIMITATION OF OUTER SPACE AND TO THE CHARACTER AND UTILIZATION OF THE GEOSTATIONARY ORBIT, INCLUDING CONSIDERATION OF WAYS AND MEANS TO ENSURE THE RATIONAL AND EQUITABLE USE OF THE GEOSTATIONARY ORBIT WITHOUT PREJUDICE TO THE ROLE OF THE INTERNATIONAL TELECOMMUNICATION UNION (agenda item 4) (continued) (A/AC.105/484 and 513; A/46/20; A/AC.105/C.2/L.189)

1. Mr. YOUNG (United Kingdom of Great Britain and Northern Ireland) said that, although his country remained unconvinced of the need for a definition and delimitation of the boundary between airspace and outer space, there was no doubt that document A/AC.105/C.2/L.189 submitted by the Russian Federation raised a number of interesting questions.

2. A perusal of the aerospace industry press disclosed three generic types of aerospacecraft. The first was the ballistic type which took off vertically powered by rockets and glided back with limited aerial manoeuvrability to land on an extended runway. The second was the horizontal take-off and landing, or HOTOL type, of which one variant would incorporate a flyback booster stage which ferried the spaceplane up to high altitude, whereupon it would disengage and use rocket power to achieve orbit. Another variant of that type was the single-stage-to-orbit vehicle, which would take-off and land from a standard runway using a combination of air breathing engines and rockets and return to Earth in a fully manoeuvrable way to land on a conventional runway, increasing safety by permitting controlled evasive action. The third type was the advanced supersonic transport, which would behave as an aircraft for most of its flight except for performing a fractional orbit to speed its ground coverage and cut commercial flight times between terrestrial points.

3. From a functional perspective, the ballistic type was a dedicated space object which only incidentally used airspace. The HOTOL type, although potentially capable of using airspace more fully, would do so only to increase efficiency and reduce costs to and from Earth orbit. For both those types, the interstitial zone between currently navigable airspace and recognized outer space was a zone of transition, not one of operation. For the foreseeable future, his delegation saw a need only for practical coordination with relevant air traffic control systems in existing flight information regions in order to ensure collision avoidance. It endorsed the suggestion made in the Working Group by the delegation of Mexico that a representative from the International Civil Aviation Organization should be consulted on that matter. It was too early to say whether the advanced supersonic transport would operate in the interstitial zone or not, but, given its Earth-oriented mission with only peripheral outer space involvement, it was likely to be treated as an aircraft for the purposes of the 1944 Chicago Convention and its technical annexes, with the latter being amended to take account of any special circumstances created by such missions.

4. In view of article II of the 1971 Convention on International Liability for Damage Caused by Space Objects, his delegation did not believe that any State would wish to undermine the certainty of space law by invoking the

vagaries of aviation law, which might require protracted litigation to sort out liability between, inter alia, manufactures and operators in the context of limited liability under the Warsaw Convention for the Unification of Certain Rules Relating to International Carriage by Air. The certainty of space law, coupled with pragmatic coordination with highly regulated airspace, militated against the necessity for a sui generis regime in the foreseeable future.

5. His delegation's views on the geostationary orbit were well known and remained unchanged; it considered that the International Telecommunication Union was able to handle the problems involved in managing the orbit spectrum resource efficiently, economically and so as to enable countries or groups of countries to have equitable access to it in accordance with article 33 of its Nairobi Convention.

6. In that context, one problem which might require the involvement of the Subcommittee was that of debris in the geostationary orbit. The matter was complicated by the fact that the geostationary orbit was not purged of debris over time, as lower Earth orbits were. It might be that the Subcommittee would have to consider the possibility of establishing rules to govern the practices mentioned by the representative of the European Space Agency (ESA) in his statement at the 558th meeting, including the boosting of geostationary spacecraft into graveyard orbits. However, that might be better dealt with when space debris became a separate item on the Subcommittee's agenda, as it no doubt would once the Scientific and Technical and Subcommittee had clarified the issues. His delegation looked forward to working actively in pursuit of satisfactory solutions to the problem of debris in order to ensure that outer space might continue to be free for exploration and use by all States on a basis of equality in accordance with article I of the 1967 Outer Space Treaty.

7. Mr. RASHKOW (United States of America) said that his delegation's basic position on the character and utilization of geostationary orbit was that the orbit was in outer space and that its use was governed by articles I and II of the 1967 Outer Space Treaty. The use, or even the repeated use, of an orbital position in the geostationary orbit thus did not mean that a State had appropriated that position or had any claim of sovereignty over it.

8. As had frequently been pointed out, the International Telecommunication Union was the international body entrusted by international law with responsibility for maximizing the orderly and efficient utilization of the geostationary orbit for telecommunications purposes and with ensuring equity in that regard. In that connection he referred specifically to article 33 of the Nairobi Convention. The question of ensuring equitable access to the geostationary orbit was a matter which the International Telecommunication Union had been dealing with satisfactorily for a number of years. Indeed, the Subcommittee should be mindful that its discussions should in no way prejudice the role of ITU.

9. His country was thus committed to equitable access by all States to the geostationary orbit; it was an ardent supporter of the need to satisfy the requirements of the developing countries for the use of the geostationary orbit, as well as in outer space telecommunications generally, and its record over the years in making the benefits of space communications available to all countries spoke for itself; it believed that effective and efficient management of the geostationary orbit was required and could best be done through ITU; and it considered that a special legal regime was not required because there was already legal authority for managing the use of the geostationary orbit which provided an administrative framework for the fulfilment of that task.

10. Mr. SCHROGL (Germany) said that item 4 had been on the Subcommittee's agenda for quite some time, during which a great deal of technological progress had been made in the use of outer space. In his delegation's view, however, such progress did not indicate that the consideration of the two subjects included in agenda item 4 had reached the stage where the elaboration of legal principles had become necessary. In fact, any codification in either area might have the effect of hampering the further development of space technology and, by extension, the use of outer space.

11. The geostationary orbit must be regarded as a limited natural resource. As a result of technological progress in increasing the spacing accuracy of satellites on the geostationary arc, however, the theoretical capacity of the geostationary orbit was almost tenfold that of its current satellite population. The only danger of physical interference between satellites on that orbit was from satellites which had become dysfunctional. That question related to the problem of space debris, which might be considered under agenda item 4 once sufficient scientific research had been carried out. In addition, the problem of the interference-free use of the radio frequency spectrum had reached a stage where new developments, such as the exploitation of higher, so far unused parts of the spectrum and the increasing use of low-orbiting satellites using other parts of the frequency spectrum, were dispelling fears of congestion. The problem of equitable access for all countries, taking particular account of the needs of developing countries, was being successfully dealt with by the International Telecommunication Union.

12. The measures taken by ITU to ensure equitable access to the geostationary orbit for all countries in the important field of satellite radio communications had to be taken into account by the Subcommittee. The 1977 "a priori" plan guaranteed every member State of ITU the use of a determined position on the geostationary orbit and the use of frequencies to establish direct broadcasting satellite services. The 1988 "a priori" plan guaranteed every member State the use of a position on the geostationary orbit in a predetermined arc and the use of frequencies to establish fixed communications satellite services. Those were the two most important radio communication services provided by satellites using the geostationary orbit at the present time. It was therefore his delegation's view that ITU was still the most effective body to deal with the planned use of the geostationary orbit, even into the twenty-first century. The ITU World Administrative Radio Conference (WARC-92), which had taken place in Torremolinas, Spain, two months previously, had allocatted frequencies to the sound broadcasting satellite service and to

high definition television transmitted by satellite. In its resolutions, WARC-92 had clearly pointed out that there would be provisions to ensure equitable access for both services. Future conferences would therefore draw up "a priori" plans that would allocate every member State of ITU a position on the geostationary orbit and the frequencies to use it.

13. In view of that strengthening of the principle of equitable access to the geostationary orbit, the Subcommittee should not interfere with the work being done by ITU. His delegation continued to believe that outer space and the geostationary orbit must be used in a rational and efficient manner in accordance with the provisions of international law. Any action which might undermine the balance established by ITU in regulating the use of the geostationary orbit in an equitable and efficient manner was to be avoided, both by ITU itself and by the Subcommittee.

14. Any attempt to force the delimitation of airspace and outer space without a solid basis for determining the relevant criteria would also affect the principle of rational and efficient use and might impede the further development of space technology and, consequently, the use of outer space.

15. Ms. GARCIA GUERRA (Mexico) said that the question of the delimitation of outer space had been under consideration ever since the establishment of the Committee on the Peaceful Uses of Outer Space, as shown by part III, paragraphs 23 to 28, of the report (A/4141) of the ad hoc Committee set up by General Assembly resolution 1348 (XIII), but the working paper submitted by the Russian Federation (A/AC.105/C.2/L.189) would give the Subcommittee an opportunity to break the deadlock. The focus of the working paper was particularly appropriate, for it would enable the Subcommittee to concentrate on the legal aspects of the flight of aerospace objects.

16. Paragraph 27 of document A/4141 referred to the possibility of concluding intergovernmental agreements which would govern activities taking place close to the Earth's surface and contain appropriate provisions as to the permissibility of a given activity by reference not only to altitude, but also to trajectory, flight mission and other functional characteristics of the vehicle or object in question. In view of the progress made in space activities and aerospacecraft, in particular, the Subcommittee should hold a substantive discussion of the questions which had been raised in the working paper submitted by the Russian Federation and which might serve as a basis for the formulation of such provisions.

17. Her delegation welcomed the progress made in the consideration of the question of the geostationary orbit and was of the opinion that the working non-paper submitted at the preceding session (A/AC.105/484, annex II, para. 12) would be a sound basis for further discussion for the purpose of establishing a special legal regime to ensure the rational, effective and economic use of that limited natural resource and to guarantee equitable access for all States. It shared the view that the consideration of the question of access to the geostationary orbit necessarily meant discussing the problem of space debris in that sector of outer space.

18. Mr. BOCKSTIEGEL (Observer for the International Law Association) said that the International Law Association (ILA), founded in 1873, was a non-governmental international organization of academics and practitioners of international law, with headquarters in London and some 40 national branches throughout the world. Its work was presented and formalized at biannual conferences, its activities between such conferences being conducted by committees established to cover various fields of public and private international law. One such committee was the Space Law Committee, whose recent work had included the finalization of a draft Convention on the Settlement of Space Law Disputes, a subject of increasing practical importance given the growth in the number of States active in space and the increasing volume of commercial space activities conducted both by States and by private enterprises.

19. Since 1986, the Space Law Committee had been working on the preparation of principles and guidelines applicable to debris and pollution arising from activities in outer space. A comprehensive report had been prepared and the Committee had begun to draft an international instrument to govern the environmental aspects of space activities and of space debris in particular. The draft text should be ready for consideration by the 1994 International Law Association Conference to be held in Argentina. ILA thus shared the interest of the Committee on the Peaceful Uses of Outer Space and its Subcommittees in the field and would be pleased to assist in any work on it.

20. ILA was also active in other areas of interest to the Committee on the Peaceful Uses of Outer Space and its Subcommittees, where it was also willing to provide assistance if required. For example, in the context of United Nations interest in national and regional data banks, the Institute of Air and Space Law at Cologne University had built up a database on space law and was cooperating with the European Space Agency, where a database called ESALEX was currently being set up. Furthermore, the draft Convention on Manned Space Flight, which had been brought to the Subcommittee's attention at its preceding session by the International Astronautical Federation on behalf of the International Institute of Space Law, had been the outcome of joint work by the Academy of Sciences of the former Soviet Union, the University of Mississippi in the United States of America and the German Institute of Air and Space Law. Should the Committee on the Peaceful Uses of Outer Space or its Legal Subcommittee consider it appropriate, those institutions and ILA would be pleased to offer their assistance on the subject. An international colloquium on the draft Convention, to be attended by leading experts in the field from around the world, would be held in Cologne from 19 to 22 May 1992.

21. Mr. KOVACS (International Telecommunication Union) said that the legal regime governing the utilization of the geostationary orbit was contained in the International Telecommunication Convention and in the Radio Regulations annexed thereto, which were international treaties established by World Administrative Radio Conferences and signed and ratified by the member States of the Union. The several hundred pages of Regulations dealing with space issues represented 30 years work, major conferences on the subject having been held in 1963, 1971, 1979, 1983, 1985, 1988 and 1992. That legal regime

was based on the principle set out in article 33 of the Convention, which characterized the geostationary orbit and the radio frequency spectrum as limited natural resources that must be used efficiently in order to allow equitable access to the orbit.

22. In the early years of space legislation, the emphasis had been on the efficient and economical utilization of the geostationary orbit, according to the principle of "first come, first served". A number of Regulations were still governed by that principle, for example, those relating to the coordination, notification and registration procedures preceding the launch of a geostationary satellite. Since a satellite was a major financial investment, such a procedure avoided the need for major changes to a satellite network once it was in place. Although such procedures provided for efficient use of the orbit, as the orbit became crowded, they would work against equitable access.

23. To ensure equitable access, an a priori procedure for planning orbital and frequency resources was provided for in the Radio Regulations under which World Administrative Radio Conferences divided orbital positions and associated frequency bands equitably among member States. Equitable access to the orbit was thus guaranteed at the expense of efficient utilization.

24. In the past 10 years, a number of flexible approaches had been adopted, offering a compromise between equitable access and efficient utilization; they had been codified by the 1988 World Administrative Radiocommunication Conference on the use of the geostationary satellite orbit (WARC ORB-88). One such solution was burden sharing, whereby the first applicant for an orbital position or frequency band was required to negotiate with later comers in order to agree on changes permitting compatibility between their systems. Another was to convene a multilateral planning meeting to solve problems associated with a given orbital arc. The procedures for drawing up frequency assignment plans had also been amended to ensure greater flexibility.

25. The most recent World Administrative Radio Conference on the space services (WARC-92) had completed its work at Torremolinos about two months previously. It had reviewed the frequency allocations to be used by the various services and had established new coordination procedures relating primarily to the mobile-satellite service, the broadcasting-satellite service and the satellite space research and earth exploration service. Although those new procedures applied mainly to space services using non-geostationary satellites, there were several areas of coordination between geostationary and non-geostationary satellites. The Conference had, inter alia, revised the definition of the geostationary orbit.

26. Mr. KHABIROV (Russian Federation) said the draft Convention on Manned Space Flight, referred to by the observer for the International Law Association and made available to the Subcommittee at its preceding session by the observer for the International Astronautical Federation, was a balanced document which raised important questions that had to be settled. It would provide the Subcommittee with a good basis for future debate. He therefore appealed to all members to approach that debate with an open mind.

27. With regard to the definition and delimitation of outer space, his delegation had put forward many proposals in the past in its unremitting efforts to find a solution acceptable to all. One idea, put forward at the preceding session of the Subcommittee, was set out in detail in the working paper (A/AC.105/C.2/L.189) submitted at the current session. That paper represented an attempt to end the stalemate on the subject. It set no preconditions for solving the problem and did not raise the question of delimiting the boundary between airspace and outer space. The majority of delegations had indicated that they agreed with the approach described in the paper; he appealed to all members of the Subcommittee and to the collective wisdom of the best thinkers on legal matters throughout the world to solve the problems to which it referred.

The meeting rose at 11.35 a.m.